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COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS

Sub-Committee of Experts on the Transport of Dangerous Goods

REPORT OF THE SUB-COMMITTEE OF EXPERTS ON ITS EIGHTEENTH SESSION

(Geneva, 3-12 July 2000)

Addendum 1

Annex 2

Draft amendments to the Model Regulations annexed to the eleventh revised edition of the United Nations Recommendations on the Transport of Dangerous Goods (Refer to ST/SG/AC.10/1/Rev.11)

GE.00- 23081

DRAFT AMENDMENTS TO THE MODEL REGULATIONS ANNEXED TO THE ELEVENTH REVISED EDITION OF THE UNITED NATIONS RECOMMENDATIONS ON THE TRANSPORT OF DANGEROUS GOODS
(Refer to ST/SG/AC.10/C.3/Rev.11)

General

Replace the word "carriage" with "transport" throughout the Recommendations

CHAPTER 1.2

1.2.1 Incorporate all the IBC definitions under "IBC" in the alphabetical list as follows:

"*Remanufactured IBCs* are metal, rigid plastics and composite IBCs that:

(a) are produced as a UN type from a non-UN type; or

(b) are converted from one UN design type to another UN design type.

Remanufactured IBCs are subject to the same requirements of these Regulations that apply to new IBCs of the same type. (See also design type definition in 6.5.4.1.1.)"

Repaired IBCs are metal, rigid plastics or composite IBCs that, as a result of impact or for any other cause (e.g. corrosion, embrittlement or other evidence of reduced strength as compared to the design type) are restored so as to conform to the design type and to be able to withstand the design type tests. For purposes of these Regulations, the replacement of the rigid inner receptacle of a composite IBC with a receptacle conforming to the original manufacturer's specification, is considered repair. However, routine maintenance of IBCs (see definition below) is not considered repair. The bodies of rigid plastics IBCs and the inner receptacles of composite IBCs are not repairable.

Routine maintenance of IBCs is the routine performance on metal, rigid plastics or composite IBCs of operations such as:

(a) cleaning;

(b) removal and reinstallation or replacement of body closures (including associated gaskets), or of service equipment, conforming to the original manufacturer's specifications, provided that the leaktightness of the IBC is verified; or

(c) restoration of structural equipment not directly performing a dangerous goods containment or discharge pressure retention function so as to conform to the design type (e.g. the straightening of legs or lifting attachments) provided that the containment function of the IBC is not affected."

"Passenger aircraft": Add at the end of the definition, "or other cargo."

"Salvage packagings", delete: "conforming to the applicable provisions of these Regulations"

CHAPTER 2.0

2.0.3.3 Add at the top of the table "Class or Division and Packing Group" and amend the entries for Hazard Class 3 and Division 4.3 to read as follows:

Class or Division and Packing Group		4.3
3	I*/	4.3
3	II*/	4.3
3	III*/	4.3

2.0.4.1 In the first sentence of the third paragraph and in the first example the word "sample" shall be in upper case to read as follows:

".... shall be supplemented with the word "SAMPLE" (e.g., FLAMMABLE LIQUID, N.O.S., SAMPLE)"

Insert "proper" when missing before the words "shipping name" (twice)

CHAPTER 2.4

2.4.2.3.2.3 In the list of self-reactive substances:

Under "Self-reactive substance", delete the entry for "2-DIAZO-1-NAPHTHOL-5-SULPHONIC ACID ESTER" (see ST/SG/AC.10/C.3/32/Add.2) and amend the following entries:

- For "BENZENE-1,3-DISULPHOHYDRAZIDE, as a paste" read "BENZENE-1,3-DISULPHONYL HYDRAZIDE, as a paste"
- For "BENZENE SULPHOHYDRAZIDE" read "BENZENE SULPHONYL HYDRAZIDE"
- For "2-DIAZO-1-NAPHTHOL-4-SULPHONIC ACID ESTER" (see ST/SG/AC.10/C.3/32/Add.2) read "2-DIAZO-1-NAPHTHOL SULPHONIC ACID ESTER MIXTURE, TYPE D"
- For "2-DIAZO-1-NAPHTHOL-4-SULPHOCHLORIDE" read "2-DIAZO-1-NAPHTHOL-4-SULPHONYL CHLORIDE"
- For "2-DIAZO-1-NAPHTHOL-5-SULPHOCHLORIDE" read "2-DIAZO-1-NAPHTHOL-5-SULPHONYL CHLORIDE"
- For "DIPHENYLOXIDE-4,4'-DISULPHOHYDRAZIDE" read "DIPHENYLOXIDE-4,4'-DISULPHONYL HYDRAZIDE"

Under "Concentration":

- For "2-DIAZO-1-NAPHTHOL SULPHONIC ACID ESTER MIXTURE, TYPE D", replace "100%" with "<100 %"

Under "Remarks":

- For "2-DIAZO-1-NAPHTHOL SULPHONIC ACID ESTER MIXTURE, TYPE D", add "(9)"

At the end of the list, under "Remarks", add:

"(9) This entry applies to mixtures of esters of 2-diazo-1-naphthol-4-sulphonic acid and 2-diazo-1-naphthol-5-sulphonic acid meeting the criteria of 2.4.2.3.3.2(d)"

CHAPTER 2.5

2.5.3.2.4 In the list of Organic Peroxides, for each organic peroxide which has in the column of the Number (Generic entry) the words "exempt", add in the last column "(29)" as a reference to a new remark to be added at the end of the table which will read as follows:

"*29) Not subject to the requirements of these Model Regulations for Division 5.2* "

Add the following entries:

ORGANIC PEROXIDE	Conc (%)	Diluent type A (%)	Diluent type B (%) 1)	Inert solid (%)	Water (%)	Packing Method	Control Temp. (°C)	Emerg. Temp. (°C)	Number (Generic entry)	Subsidiary risks and remarks
DIISOPROPYL PEROXYDICARBONATE	≤ 28	≥ 72				OP7	- 15	- 5	3115	
PEROXYACETIC ACID, DISTILLED, TYPE F, stabilized	≤ 41					M	+ 30	+ 35	3119	13) 30)

Add a new remark at the end of the table to read as follows:

"30) Formulation derived from distillation of peroxyacetic acid originating from peroxyacetic acid in concentration of not more than 41% with water, total active oxygen (Peroxyacetic Acid+H_2O_2) ≤ 9.5%, which fulfills the criteria of 2.5.3.3.2 (f)"

CHAPTER 2.6

2.6.3.1.3 Replace the existing 2.6.3.1.3 with the following text:

"*Diagnostic specimens* are any human or animal material including, but not limited to, excreta, secreta, blood and its components, tissue and tissue fluids being transported for diagnostic or investigation purposes, but excluding live infected animals.

Diagnostic specimens shall be assigned to UN 3373 unless the source patient or animal has or may have a serious human or animal disease which can be readily transmitted from one

individual to another, directly or indirectly, and for which effective treatment and preventive measures are not usually available, in which case they shall be assigned to UN 2814 or UN 2900.

***Note 1:**. Blood which has been collected for the purpose of blood transfusion or for the preparation of blood products, and blood products and any tissues or organs intended for use in transplants are not regarded as dangerous goods for transport.*

***Note 2:** Assignment to UN 2814 or UN 2900 should be based on known medical history of the patient/animal, endemic local conditions, symptoms of the patient/animal or professional judgement concerning individual circumstances of the patient/animal."*

2.6.3.3 In the title, delete: ", diagnostic specimens".

2.6.3.3.2 Delete.

CHAPTER 2.8

2.8.2.2 Replace the reference to footnote "1/" (which will be deleted and consequently footnote 2 will be renumbered as footnote 1) with "(see 2.8.2.3)"

2.8.2.3 Insert the text of footnote 1 as a new 2.8.2.3 and renumber the following paragraphs accordingly

CHAPTER 3.1

Text of document ST/SG/AC.10/C.3/34, Annex 3 with the following modifications:

3.1.2.6 Whole sub-section to be renumbered 3.1.2.8

3.1.2.6.1.3 (now 3.1.2.8.1.3) Amend the first example to read as follows:

"UN 2003 METAL ALKYL, WATER-REACTIVE, N.O.S. (trimethylgallium)"

CHAPTER 3.2

Dangerous Goods List

Wherever they appear in Column 6 of the Dangerous Goods List, delete special provisions "15", "18", "78", "107" and "222"

In the Dangerous Goods List, when an individual UN number represents both liquid and solid substance, the liquid entries shall always be listed first.

Wherever it appears throughout Chapter 3.2:

- For all substances assigned to IBC08, PG. III : apply B3
- For all substances assigned to IBC08, PG. I or II : apply B4
- For all substances assigned to IBC08, PG. III (other than those of Division 4.3): delete B4
- For all substances assigned to IBC08 delete B3 when B4 is also applied.

Add the following entries:

UN No.	Name and description	Class or Division	Subsi-diary risk	UN packing group	Special provi-sions	Limited quanti-ties	Packagings and IBC's		Portable tanks	
							Packing instruction	Special provision	Portable tank instruct.	Portable tank special prov.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1153	ETHYLENE GLYCOL DIETHYL ETHER	3		II		1 L	P001 IBC02		T4	TP1
3364	TRINITROPHENOL (PICRIC ACID), WETTED, with not less than 10% water by mass	4.1		I		NONE	P406	PP24		
3365	TRINITROCHLOROBENZE-NE (PICRYL CHLORIDE), WETTED, with not less than 10% water by mass	4.1		I		NONE	P406	PP24		
3366	TRINITROTOLUENE (TNT), WETTED, with not less than 10% water by mass	4.1		I		NONE	P406	PP24		
3367	TRINITROBENZENE, WETTED, with not less than 10% water by mass	4.1		I		NONE	P406	PP24		
3368	TRINITROBENZOIC ACID, WETTED, with not less than 10% water by mass	4.1		I		NONE	P406	PP24		
3369	SODIUM DINITRO-o-CRESOLATE, WETTED, with not less than 10% water by mass	4.1		I		NONE	P406	PP24		
3370	UREA NITRATE, WETTED, with not less than 10% water by mass	4.1		I		NONE	P406	PP78		
3371	2-METHYLBUTANAL	3		II		1L	P001 IBC02		T4	TP1
3372	ORGANOMETALLIC COMPOUND, SOLID, WATER-REACTIVE, FLAMMABLE, N.O.S.	4.3	4.1	I	274	NONE	P403 IBC04			
		4.3	4.1	II	274	500 g	P410 IBC04			
		4.3	4.1	III	223 274	1 kg	P410 IBC06			
3373	DIAGNOSTIC SPECIMENS	6.2				NONE	P650			
3374	ACETYLENE, SOLVENT FREE	2.1					P200	PP23		

Amend the following entries to read :

UN No.	Name and description	Class or Division	Subsidiary risk	UN packing group	Special provisions	Limited quantities	Packagings and IBC's		Portable tanks	
							Packing instruction	Special prov.	Portable tank instruct.	Portable tank special provision
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
0503	AIR BAG INFLATORS, or AIR BAG MODULES, [or GAS GENERATORS FOR SEAT BELTS] or SEAT-BELT PRETENSIONERS	1.4G			235 289	NONE	P135			
1942	AMMONIUM NITRATE, with not more than 0.2% total combustible material, including any organic substance, calculated as carbon to the exclusion of any other added substance.	5.1			306					
2067	AMMONIUM NITRATE BASED FERTILIZER	5.1			186 306 307					
2071	AMMONIUM NITRATE BASED FERTILIZER	9			186 193					
3268	AIR BAG INFLATORS, or AIR BAG MODULES, [or GAS GENERATORS FOR SEAT BELTS] or SEAT-BELT PRETENSIONERS	9		III	280 289	NONE	P902 LP902			

UN 0223, 2068, 2069, 2070 and 2072 Delete these entries

UN 1040 Add "PP79" in column (9)

UN 1057 In column (2) Delete "(cigarettes)"

UN 1177 Amend the proper shipping name to read "2-ETHYLBUTYL ACETATE"

UN 1278 Amend the proper shipping name to read "1-CHLOROPROPANE"

UN 1347, 1357, 1571 and 2852 Add special provision "28" in column (6).

UN 1374 Insert in column (6), special provision "300"

UN 1579 Add "T4" and "TP1" in column (10) and (11) respectively

UN 1702 Add "1,1,2,2-" immediately before the proper shipping name "TETRACHLOROETHANE"

UN Nos.1863 (PG I), **1866** (PG I), **1906, 2571, 2797, 3250 and 3295** (PG I)
Add TP 28 in column (11)

UN 1993 (PG I) **and UN 3279** (PG I) Add TP 27 in column (11)

UN 2216 Insert in column (6), special provision 308

UN 2249 Add "3" in column (4)

UN 2264 Amend the proper shipping name to read "N, N-DIMETHYLCYCLOHEXYLAMINE"

UN 2277 Add ", STABILIZED" to the proper shipping name.

UN 2315, 3151 and 3152 Add special provision "305" in column (6)

UN 2684 Amend the proper shipping name to read "3-DIETHYLAMINOPROPYLAMINE"

UN 2793 Delete special provision"107" in column (6) and add special provision "223"

UN 2870 Delete special provision"78" in column (6)

UN 2880 Amend the name in column (2) to read:

"CALCIUM HYPOCHLORITE, HYDRATED, or CALCIUM HYPOCHLORITE, HYDRATED MIXTURE, with not less than 5.5% but not more than 16% water"

UN 2907 Add "B12" in column (9)

UN 2907 and UN 3344 Add "PP80" in column (9)

UN 3027 and UN 3052 Delete the portable tank instructions in column (10)

UN 3028 Add special provision "304" in column (6)

UN 3353 Delete this entry

UN 3359 Delete "29" in column (6)

CHAPTER 3.3

SP15 Delete

SP18 Delete

SP 29 Delete the words "and the packing group"

SP 78 Delete

SP 107 Delete

SP 193 Amend to read as follows:

"This entry may only be used for uniform ammonium nitrate based fertilizer mixtures of the nitrogen, phosphate or potash type, containing not more than 70% ammonium nitrate and not more than 0.4% total combustible/organic material calculated as carbon or with not more than 45% ammonium nitrate and unrestricted combustible material. Fertilizers within these composition limits are only subject to these Regulations when transported by air or sea and are not subject to these Regulations if shown by a Trough Test (see *Manual of Tests and Criteria*, Part III, sub-section 38.2) not to be liable to self-sustaining decomposition."

SP 216, 217 and 218 Replace the sentence "Each transport unit shall be leakproof." with "Each transport unit shall be leakproof when used as a bulk packaging."

SP 222 Delete

SP 227 Delete the first sentence

SP 235 Amend to read as follows:

"This entry applies to articles which contain Class 1 explosive substances and which may also contain dangerous goods of other classes. These articles are used as life-saving vehicle air bag inflators or air-bag modules [or gas generators for seat belts] or seat-belt pretensioners."

SP 280 Amend to read as follows:

"This entry applies to articles which are used as life-saving air bag inflators, or air-bag modules [or gas generators for seat belts] or seat-belt pretensioners and which contain dangerous goods of Class 1 or dangerous goods of other classes and when transported as component parts and when these articles as presented for transport have been tested in accordance with Test series 6 (c) of Part I of the *Manual of Tests and Criteria*, with no explosion of the device, no fragmentation of device casing or pressure vessel, and no projection hazard nor thermal effect which would significantly hinder fire-fighting or other emergency response efforts in the immediate vicinity"

SP 297 Amend the first paragraph to read:

"For air transport, arrangements between consignor and operator(s) shall be made for each consignment, to ensure that ventilation safety procedures are followed."

SP 300 Delete the second sentence

SP 301 Add at the end an additional sentence as follows:

"The transport of dangerous goods in machinery or apparatus where the quantity of dangerous goods exceeds the quantity specified in Column 7 of the Dangerous Goods List is authorized when approved by the competent authority."

SP 302 Amend to read as follows:

"In the proper shipping name, the word UNIT means:

a road freight vehicle;
a railway freight wagon;
a freight container;
a road tank vehicle;
a railway tank wagon; or
a portable tank.

Except when transported by sea, fumigated units are only subject to the requirements of 5.5.2."

SP 304 Add the following new special provision

"Batteries, dry, containing corrosive electrolyte which will not flow out of the battery if the battery case is cracked are not subject to these Regulations provided the batteries are securely packed and protected against short-circuits. Examples of such batteries are: alkali-manganese, zinc-carbon, nickel-metal hydride and nickel-cadmium batteries."

SP 305 Add the following new special provision:

"These substances are not subject to these Regulations when in concentrations of not more than 50 mg/kg"

SP 306 Add the following new special provision:

"This entry may only be used for substances that do not exhibit explosive properties of Class 1 when tested in accordance to Test Series 1 and 2 of Class 1 (see *Manual of Tests and Criteria*, Part I).

SP 307 Add the following new special provision:

" This entry may only be used for uniform mixtures containing ammonium nitrate as the main ingredient within the following composition limits:

(a) not less than 90 % ammonium nitrate with not more than 0.2% total combustible/organic material calculated as carbon and with added matter, if any, which is inorganic and inert towards ammonium nitrate ; or

(b) less than 90% but more than 70% ammonium nitrate with other inorganic compatible materials or more than 80% but less than 90% ammonium nitrate mixed with calcium carbonate and/or dolomite and not more than 0.4% total combustible/organic material calculated as carbon; or

(c) Nitrogen type ammonium nitrate based fertilizers containing mixtures of ammonium nitrate and ammonium sulphate with more than 45% but less than 70% ammonium nitrate and not more than 0.4% total combustible/organic material calculated as carbon such that the sum of the percentage compositions of ammonium nitrate and ammonium sulphate exceeds 70%.

SP308 Add the following new special provision:

"Fish scrap or fish meal shall contain at least 100 ppm of antioxidant (ethoxyquin) at the time of consignment."

CHAPTER 3.4

3.4.1 In the second sentence add "of the inner packaging or article" after "The applicable quantity limit"

CHAPTER 4.1

4.1.1.1 Amend last sentence to read:

"These provisions apply, as appropriate, to new, reused, reconditioned or remanufactured packagings, and to new, reused, repaired or remanufactured IBCs, and to new or reused large packagings."

Add the following text to be the third sentence of the paragraph:

"Packagings, including IBCs and large packagings, shall be closed in accordance with the information provided by the manufacturer."

4.1.1.12(c) Amend to read:

"(c) after the repair or remanufacture of any IBC, before it is re-used for transport."

4.1.2.5 Add a new 4.1.2.5 to read:

"Except for routine maintenance of metal, rigid plastics and composite IBCs performed by the owner of the IBC, whose State and name or authorized symbol is durably marked on the IBC, the party performing routine maintenance shall durably mark the IBC near the manufacturer's UN design type marking to show:

(a) the State in which the routine maintenance was carried out; and

(b) the name or authorized symbol of the party performing the routine maintenance."

4.1.3.4 For IBCs, Composite, delete: "and 31HZ2"

4.1.4.1 In packing instruction **P200**, under "Special packing provisions", add a new provision PP79 to read as follows:

" PP79 Ethylene oxide (UN 1040) may also be packed in hermetically sealed glass or metal inner packagings suitably cushioned in fibreboard, wooden or metal boxes meeting the packing group I performance level. The maximum quantity permitted in any glass inner packaging is 30 g, and the maximum quantity permitted in any metal inner packaging is 200 g. After filling, each inner packaging shall be determined to be leak-tight by placing the inner packaging in a hot water bath at a temperature, and for a period of time, sufficient to ensure that an internal pressure equal to the vapour pressure of ethylene oxide at 55°C is achieved. The total quantity in any outer packaging shall not exceed 2.5 kg."

Add the following entry to the table of gases:

UN No.	Name and description	Receptacles	Test Pressure x working pressure	MPa	Test period	Filling	Special Requir.
3374	ACETYLENE, SOLVENT FREE	(1),(2),(3),(4),(5)		6,0	5		c, i

c: Metal parts in contact with the contents shall not contain more than 65% copper (see ISO 11114-1) [ISO 3807-1 and ISO 3807-2]

i: The maximum filling degree shall be in accordance with the figures specified in the approval [of the monolithic porous mass].

In packing instruction **P401**, delete :

"3) Steel drums (1A1) with a maximum capacity of 250 litres"

In packing instruction **P406**, amend the special provision PP24 to read as follows:

"UN Nos 2852, 3364, 3365, 3366, 3367, 3368 and 3369 shall not be transported in quantities of more than 500 g per package."

Add the following new special provisions PP78 and PP80 to read as follows:

"PP78 UN 3370 shall not be transported in quantities of more than 11.5 kg per package.

PP80 For UN Nos 2907 and 3344, packagings shall meet the packing group II performance level. Packagings meeting the test criteria of packing group I shall not be used."

In packing instructions **P601** and **P602**: Add at the end of the first sentence, after "and 4.1.3 are met", "and the packagings are hermetically sealed".

In packing instruction **P601**, under (3), " Combination packagings ", add the following text after (e):

"(f) the outer and inner packagings shall be subjected periodically to a leakproofness test according to (b) at intervals of not more than two and a half years.

(g) the outer and inner packagings shall bear in clearly legible and durable characters :

(i) the date (month, year) of the initial testing and the latest periodical test;

(ii) the name or authorized symbol of the party performing the tests and inspections."

Insert a new packing instruction **P650** to read as follows:

P650	**PACKING INSTRUCTION**	**P650**
This instruction applies to UN 3373		

General provisions

Diagnostic specimens shall be packed in good quality packagings, which shall be strong enough to withstand the shocks and loadings normally encountered during transport, including trans-shipment between transport units and/or warehouses as well as any removal from a pallet or overpack for subsequent manual or mechanical handling. Packagings shall be constructed and closed so as to prevent any loss of contents when prepared for transport which might be caused under normal conditions of transport, by vibration, or by changes in temperature, humidity or pressure.

Primary receptacles shall be packed in secondary packagings in such a way that, under normal conditions of transport, they cannot break, be punctured or leak their contents into the secondary packaging. Secondary packagings shall be secured in outer packagings with suitable cushioning material. Any leakage of the contents shall not substantially impair the protective properties of the cushioning material or of the outer packaging.

For transport each package shall be clearly and durably marked with the words "DIAGNOSTIC SPECIMENS".

The completed package shall be capable of successfully passing the drop test in 6.3.2.5 as specified in 6.3.2.3 and 6.3.2.4 except that the height of the drop shall not be less than 1.2 m.

For Liquids

The primary receptacle(s) shall be leakproof and shall not contain more than 500 ml.

There shall be absorbent material placed between the primary receptacle and the secondary packaging; if several fragile primary receptacles are placed in a single secondary packaging, they shall be either individually wrapped or separated so as to prevent contact between them. The absorbent material, such as cotton wool, shall be in sufficient quantity to absorb the entire contents of the primary receptacles and there shall be a secondary packaging which shall be leakproof.

The primary receptacle or the secondary packaging shall be capable of withstanding without leakage an internal pressure producing a pressure differential of not less than 95 kPa (0.95 bar).

The outer packaging shall not contain more than 4 litres.

P650	PACKING INSTRUCTION	P650
For Solids		
The primary receptacle(s) shall be siftproof and shall not contain more than 500 g. If several fragile primary receptacles are placed in a single secondary packaging, they shall be either individually wrapped or separated so as to prevent contact between them and there shall be a secondary packaging which shall be leakproof. The outer packaging shall not contain more than 4 kg. Provided that diagnostic specimens are packed in accordance with this Packing instruction, no other requirements of these Model Regulations shall apply.		

Amend packing instruction **P902** to read as follows:

P902	PACKING INSTRUCTION	P902
This instruction applies to UN 3268		
The following packagings are authorised, provided the general provisions of **4.1.1** and **4.1.3** are met: Packagings conforming to the packing group III performance level. The packagings shall be designed and constructed to prevent movement of the articles and inadvertent operation during normal conditions of transport. The articles may also be carried unpackaged in dedicated handling devices, vehicles, containers or wagons when moved from where they are manufactured to an assembly plant.		
Additional requirement: Any pressure vessel shall be in accordance with the requirements of the competent authority for the substance(s) contained in the pressure vessel(s).		

4.1.4.2 Packing instruction **IBC06**: add the following new special provision B12 to read as follows:

"B12 For UN 2907, IBCs shall meet the packing group II performance level. IBCs meeting the test criteria of packing group I shall not be used."

Under "(3) Composite" delete "31HZ2"

Amend IBC Special packing provisions **B3** and **B4** to read as follows:

"B3 Only flexible IBCs which are sift-proof and water resistant or are fitted with a sift-proof and water resistant liner are authorised."

"B4 Flexible, fibreboard or wooden IBCs shall be sift-proof and water resistant or shall be fitted with a sift-proof and water resistant liner."

4.1.4.3 Add a new packing instruction LP902 to read as follows:

LP902	PACKING INSTRUCTION	LP902
This instruction applies to UN 3268		
The following packagings are authorised, provided the general provisions of **4.1.1** and **4.1.3** are met: Packagings conforming to the packing group III performance level. The packagings shall be designed and constructed to prevent movement of the articles and inadvertent operation during normal conditions of transport. The articles may also be carried unpackaged in dedicated handling devices, vehicles, containers or wagons when moved from where they are manufactured to an assembly plant.		
Additional requirement: Any pressure vessel shall be in accordance with the requirements of the competent authority for the substance(s) contained in the pressure vessel(s).		

CHAPTER 4.2

4.2.1.4 Replace "dangerous goods" with "substances"

4.2.1.9 Amend the title to read "Degree of filling"

4.2.1.9.1, 4.2.2.7.1
and 4.2.3.6.1 Replace "weaken the material" with "weaken these materials"

4.2.1.9.1.1 Amend the end of the sentence to read as follows:

"in the applicable portable tank instructions or special provisions in 4.2.4.2.6 or 4.2.4.3 and Columns 10 or 11 of the Dangerous Goods List."

4.2.1.9.6 (b) Replace "goods" with "substances"

4.2.1.13.1 In the last sentence, replace "special requirement" with "additional provision"

4.2.1.13.2
and 4.2.1.13.3 Replace "requirements" with " provisions" (3 times)

4.2.1.13.6 Replace "the properties of the peroxide" with "the properties of the substance"

4.2.1.13.8 In the text under the formula, delete "[-]", replace "vessels "with "shells" (twice) and amend:

"T_{PO} = temperature of peroxide at relieving conditions" to read
"T_{PO} = temperature of substance at relieving conditions"

In the last sentence, add "portable" before "tank"

4.2.2.5
and 4.2.3.4 Replace "dangerous goods" with "gas(es)"

4.2.3.2 Amend the end of the sentence to read as follows:

"assigned to each substance in Column 11 of the Dangerous Goods List and described in 4.2.4.3."

4.2.3.7 Renumber the paragraph under the title as "4.2.3.7.1" and the following one (now 4.2.3.7.1) as "4.2.3.7.2"

4.2.3.9 Delete ", as appropriate,"

4.2.4.2.1 Replace "requirements" with "provisions" (3 times) and amend the end of the paragraph to read: "...to the general provisions in this Chapter and the general requirements in Chapter 6.7"

4.2.4.2.5 In the text before the table, replace "wall thicknesses" with "shell thicknesses"

In the table, for portable tank instruction T5, under "portable tank instructions also permitted" delete "T12", "T16" and "T18"

4.2.4.2.6 In the table of portable tank instruction **T23**:

Amend the title of the 7th column to read "Degree of filling" and footnote **/ to read: "Maximum quantity per portable tank: 2000 kg"

Add the following entry under UN 3119

UN No	Substance	Minimum test pressure (bar)	Minimum shell thickness (mm-reference steel)	Bottom opening require-ments	Pressure relief require-ments	Degree of filling	Contr. temp.	Emerg temp.
	PEROXYACETIC ACID, DISTILLED, TYPE F, stabilized **/						+ 30°C	+ 35°C

Add a new footnote to read as follows:

*"**/ Formulation derived from distillation of peroxyacetic acid originating from peroxyacetic acid in concentration of not more than 41% with water, total active oxygen (peroxyacetic acid+H_2O_2) ≤ 9.5%, which fulfills the criteria of 2.5.3.3.2 (f)"*

In the table of portable tank instruction **T50** amend the title of the 6th column to read "Maximum filling density" and change:

The values of maximum filling density for:

R 404 A	from	0.82 kg/l	to	0.84 kg/l
R 407 A	from	0.94 kg/l	to	0.95 kg/l
R 407 B	from	0.93 kg/l	to	0.95 kg/l

The values of maximum allowable working pressure for:

R 404 A	Small		none		none
	Bare	from	28.2 bar	to	28.3 bar
	Sunshield	from	25.2 bar	to	25.3 bar
	Insulated	from	22.1 bar	to	22.5 bar
R 407 A	Small	from	32.3 bar	to	31.3 bar
	Bare	from	29.0 bar	to	28.1 bar
	Sunshield	from	25.7 bar	to	25.1 bar
	Insulated		none		none
R 407 B	Small	from	34.0 bar	to	33.0 bar
	Bare	from	30.5 bar	to	29.6 bar
	Sunshield	from	27.0 bar	to	26.5 bar
	Insulated		none		none
R 407 C	Small	from	30.2 bar	to	29.9 bar
	Bare	from	27.0 bar	to	26.8 bar
	Sunshield	from	24.1 bar	to	23.9 bar
	Insulated	from	21.4 bar	to	21.3 bar

4.2.4.3 Replace "to indicate requirements" with "to indicate provisions" and "designated using the abbreviation TP" with "identified by an alpha numeric designation beginning with the letters "TP""

Amend TP1, TP2, and TP3 to read "the degree of filling prescribed in ... shall not be exceeded ..."

Under TP4, delete "for portable tanks"

Under TP12, insert at the beginning "This substance is"

Under TP19 (twice) and TP 21, replace "wall thickness" with "shell thickness"

CHAPTER 5.2

5.2.1.1 Replace "shown" with "marked"

5.2.2.1.3.1 Insert the words "Packages containing" before "substances" (twice)

CHAPTER 5.4

Text of document ST/SG/AC.10/C.3/34, Annex 3 with the following modifications:

5.4.1.4.1 Move "(c) the UN number preceded by the letters "UN"" at the beginning of the list as "(a)" and adapt paragraph numbering.

Under (b), now (c), delete the square brackets.

5.4.1.4.2 Amend the example of the dangerous goods description to read as follows:

"UN 1098 ALLYL ALCOHOL 6.1 (3) I"

5.4.1.4.3 (d) Amend the title to read: "*Elevated temperature substances*"

Delete, at the end of the paragraph, "on the dangerous goods transport document"

5.4.1.5.1 Delete the square brackets and amend the beginning to read as follows: "Except for empty uncleaned packagings..."

Insert, after the second sentence, the following text:

"For salvage packages, an estimate of the quantity of dangerous goods shall be given."

Amend the last but one sentence to read as follows:

"The number and kind (e.g. drum, box, etc.) of packages shall also be indicated."

5.4.1.5.4 Amend the beginning to read as follows:

"If the word "STABILIZED" is part of the proper shipping name (see also 3.1.2.6), when stabilization..."

Delete the square brackets around "(see 7.1.4.3.1)"

5.4.1.5.5 Insert a new paragraph to read as follows:

"5.4.1.5.5 Special provisions for reactive substances stabilized by temperature control

For substances that contain the term "STABILIZED" in the proper shipping name, that require temperature control during transport, the control and emergency temperatures shall be indicated in the transport document."

Renumber the current paragraph 5.4.1.5.5 as 5.4.1.5.6 and subsequent paragraphs accordingly.

5.4.1.5.6.1 Delete the paragraph number

5.4.1.5.6.2′ and 5.4.1.5.6.3 Deleted

5.4.2 Amend to read as follows:

"5.4.2 **Container/vehicle packing certificate**

5.4.2.1 When dangerous goods are packed or loaded into any container[1] or vehicle which will be transported by sea, those responsible for packing of the container or vehicle shall provide a "container/vehicle packing certificate" specifying the container/vehicle identification number(s) and certifying that the operation has been carried out in accordance with the following conditions:

(a) The container/vehicle was clean, dry and apparently fit to receive the goods;

(b) Packages, which need to be segregated in accordance with applicable segregation requirements, have not been packed together onto or in the container/vehicle;

(c) All packages have been externally inspected for damage, and only sound packages loaded have been loaded;

(d) All goods have been properly loaded and, where necessary, adequately braced with securing material to suit the mode(s) of transport for the intended journey;

(e) Goods loaded in bulk have been evenly distributed within the container/vehicle;

(f) For consignments including goods of Class 1 other than Division 1.4, the container/vehicle is structurally serviceable in accordance with 7.1.3.2.1;

(g) The container/vehicle and packages are properly marked, labelled and placarded, as appropriate;

(h) When solid carbon dioxide (CO_2-dry ice) is used for cooling purposes, the container/vehicle is externally marked or labelled in a conspicuous place, such as, at the door end, with the words: "DANGEROUS CO_2 (DRY ICE) INSIDE. VENTILATE THOROUGHLY BEFORE ENTERING"; and

(i) A dangerous goods transport document, as indicated in 5.4.1.1, has been received for each dangerous goods consignment loaded in the container/vehicle.

Note: *The container/vehicle packing certificate is not required for tanks*

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[1] *Container means an article of transport equipment that is of a permanent character and accordingly strong enough to be suitable for repeated use; specially designed to facilitate the transport of goods, by one or more modes of transport, without intermediate reloading; designed to be secured and/or readily handled, having fittings for these purposes, and approved in accordance with the International Convention for Safe Containers (CSC), 1972, as amended. The term 'container' includes neither vehicle nor packaging. However, a container that is carried on a chassis is included.*

5.4.2.2 The information required in the dangerous goods transport document and the container/vehicle packing certificate may be incorporated into a single document, if not, these documents shall be attached one to the other. If the information is incorporated into a single document, the document shall include a signed declaration such as "It is declared that the packing of the goods into the container/vehicle has been carried out in accordance with the applicable provisions". This declaration shall be dated and the person signing this declaration shall be identified on the document."

CHAPTER 5.5

5.5.2 Amend to read as follows:

"**5.5.2 Documentation and identification of fumigated units**

5.5.2.1 Transport documents associated with the transport of units that have been fumigated shall show the date of fumigation and the type and amount of the fumigant used. In addition, instructions for disposal of any residual fumigant including fumigation devices (if used) shall be provided.

5.5.2.2 A warning sign as specified in 5.5.2.3 shall be placed on each fumigated unit in a location where it will be easily seen by persons attempting to enter the interior of the unit. When the fumigated unit has been ventilated to remove harmful concentrations of fumigant gas, the warning sign shall be removed."

5.5.2.3 Add a new paragraph to read as follows:

"The fumigation warning sign shall be rectangular and shall not be less than 300 mm wide and 250 mm high. The markings shall be black print on a white background with lettering not less than 25 mm high. An illustration of this sign is given in Figure 5.6"

CHAPTER 6.1

6.1.1.5, 6.3.1.3, 6.4.2.12 and 6.6.1.3 Add the following text as new paragraphs 6.1.1.5, 6.3.1.3, 6.4.2.12 and 6.6.1.3:

"Manufacturers and subsequent distributors of packagings shall provide information regarding procedures to be followed and a description of the types and dimensions of closures (including required gaskets) and any other components needed to ensure that packages as presented for transport are capable of passing the applicable performance tests of this Chapter."

6.1.4.8.2 Replace "the period of use permitted...is five years from the manufacture of ..." with "the period of use permitted ... shall not exceed five years from the manufacture of ..."

6.1.4.18.1 Amend the first sentence to read as follows:

"Bags shall be made of a suitable kraft paper or of an equivalent paper with at least three plies, the middle ply of which may be net-cloth and adhesive bonding to the outer paper plies"

6.1.5.5.4 Replace "substance" with "liquid" (three times)

6.1.5.5.5 Replace "substances" with "liquids"

CHAPTER 6.4

6.4.23.4 Amend the introductory sentence to read: "An application for approval of Type B(U) and Type C package design shall include:"

6.4.23.9 Amend the text pertaining to B(U), B(M) and Type C package design as follows:

"B(U) Type B(U) package design [B(U)F if for fissile material]
B(M) Type B(M) package design [B(M)F if for fissile material]
C Type C package design (CF if for fissile material)"

6.4.23.13 Insert the missing sub-paragraph (h) to read as follows:

"(h) Reference to information provided by the applicant relating to specific actions to be taken prior to the shipment."

CHAPTER 6.5

6.5.1.1.4 Add a new paragraph to read:

"Manufacturers and subsequent distributors of IBCs shall provide information regarding procedures to be followed and a description of the types and dimensions of closures (including required gaskets) and any other components needed to ensure that IBCs as presented for transport are capable of passing the applicable performance tests of this Chapter."

6.5.1.6.4 Amend last sentence to read:

"A report of each inspection shall be kept by the owner of the IBC at least until the next inspection. The report shall include the results of the inspection and shall identify the party performing the inspection. (See also the marking requirements in 6.5.2.2.1.)"

6.5.1.6.5 Amend to read:

"When the structure of an IBC is impaired as a result of impact (e.g. accident) or any other cause, it shall be repaired or otherwise maintained (see definition of routine maintenance of IBCs in 1.2.1), so as to conform to the design type."

6.5.1.6.6 Add a new 6.5.1.6.6 to read:

"In addition to any other testing and inspection requirements in these Regulations, an IBC shall be subjected to the full testing and inspection requirements set out in 6.5.4.14.3 and 6.5.1.6.4(a), and the required reports shall be prepared, whenever it is repaired.

(a) Except for repairs by the original IBC manufacturer whose design type marks appear on the IBC, or the owner of the IBC whose State and name or authorized symbol is durably marked on the IBC, the party performing the repair shall durably mark the IBC near the manufacturer's UN design type marking to show:

(i) the State in which the repair was carried out;

(ii) the name or authorized symbol of the party performing the repair; and,

(iii) the date (month and year) of the repair (if not already marked in accordance with 6.5.2.2.1).

(b) Such tests and inspections may be considered to satisfy the requirements for the two and a half and five year periodic test and inspection."

Renumber existing 6.5.1.6.6 as 6.5.1.6.7

6.5.4.14 Amend the heading to read: "Testing of metal, rigid plastics and composite IBCs"

6.5.4.14.3 Amend to read as follows:

"Each metal, rigid plastics and composite IBC for liquids, or for solids which are filled or discharged under pressure, shall be subjected to the leakproofness test, as an initial test (i.e. before the IBC is first used for transport), after repair, and at intervals of not more than two and a half years."

6.5.4.14.4 Amend to read as follows:

"The results of tests and the identity of the party performing the tests shall be recorded in test reports to be kept by the owner of the IBC at least until the date of the next test."

CHAPTER 6.7

6.7.2.1
and 6.7.2.5.15 Delete the square brackets

6.7.2.1 Under the definition of "portable tank", replace "lifted onto a transport vehicle" with "loaded onto a transport vehicle"

6.7.2.2.3
and 6.7.2.2.7 Replace "substances" with "substance(s)"

6.7.2.2.9.1 Insert the following new paragraph:

"For portable tanks that are intended for use offshore, the dynamic stresses imposed by handling in open seas shall be taken into account."

6.7.2.2.13, 6.7.2.2.14, 6.7.2.3.3, 6.7.3.2.1, 6.7.3.2.10, 6.7.3.2.11,
6.7.3.3.3, 6.7.4.2.1,6.7.4.2.13,6.7.2.4.14
and 6.7.4.3.3 Replace "yield strength" with "yield stress" and "proof strength" with ""proof stress"

6.7.2.2.16 Amend the first sentence to read "... portable tank instruction indicated in Column 10 of the Dangerous Goods List and described in 4.2.4.2.6 or .... of the Dangerous Goods List and described in 4.2.4.3."

6.7.2.3.2 Replace "applicable tank instruction" with "applicable portable tank instruction". Add at the end of the second sentence "and described in 4.2.4.3."

6.7.2.4.1 (c) Amend to read "... portable tank instruction indicated in Column 10 of the Dangerous Goods List and described in 4.2.4.2.6 or .... of the Dangerous Goods List and described in 4.2.4.3."

6.7.2.4.6 and 6.7.2.4.7 Amend the explanation of e_0 to read "... portable tank instruction indicated in Column 10 of the Dangerous Goods List and described in 4.2.4.2.6 or .... of the Dangerous Goods List and described in 4.2.4.3."

6.7.2.6.4 Replace "6.7.2.6.3.1" with "6.7.2.6.3 (a)"

6.7.2.8.3 Amend to read "..., pinholing, ..."

6.7.2.12.2.3 In the title, replace "emergency vent capacity" with "required rate of discharge"

6.7.2.19.5 In the last sentence, replace "procedures by the competent authority" with "procedures specified by the competent authority"

6.7.2.19.8 (a) Replace "the shell unsafe" with "the portable tank unsafe"

6.7.2.19.8 (b) and 6.7.3.15.8 (b) Shall read as follows: "... defects, or any other conditions,..."

6.7.2.20.1, 6.7.3.16.1 and 6.7.4.15.1 In the list of information, add "(see 6.7.1.2)" after "For Alternative Arrangements"

6.7 2.20.2 In the list of information to be marked on the portable tank, delete the words "Name of the substance(s)....50 °C"

6.7.3.1 and 6.7.4.1 In the definition of "portable tank" replace "loaded and discharged" with "filled and discharged"

6.7.3.1 The end of the definition of "shell" shall read "... or external structural equipment;"

In the definition of "maximum allowable working pressure", under (b)(ii), read "... due to an increase"

6.7.3.2.5 Replace "gases" with "gas(es)"

6.7.3.2.11 In the first sentence read "... the values according to national..", in the second sentence, "... when these greater values are.."

6.7.3.3.3.1 Amend the second sentence to read "... when these greater values are.."

6.7.3.5.9 Amend the second and third sentences to read: "All stop-valves with a screwed spindle shall... For other stop-valves the position (open and closed)..."

6.7.3.5.13 Amend to read "valves and accessories."

6.7.3.8.1.1 Amend the definition of "C" to read "a constant which is derived from one of the following formulae as a function of the ratio k of specific heats"

6.7.3.13.1 Replace "fabricated" with "constructed"

6.7.3.14.1 The second sentence shall read "This certificate shall attest that a portable tank ..."

6.7.4.2.13 (b) Replace "... or, in case of austenitic steel..." with "... or, for austenitic steel..."

6.7.4.2.14 Amend the second sentence to read: "... when these greater values are attested ..."

6.7.4.4.7 Amend the references in the first sentence to read as follows: "6.7.4.4.1 to 6.7.4.4.5"

6.7.4.6.1 Shall read "... fully open at a pressure equal to..."

6.7.4.10.1 Amend the beginning to read as follows: "Each pressure-relief device inlet shall be..."

6.7.4.12.1 Amend the references in the second sentence to read as follows: "The forces specified in 6.7.4.2.12 and the safety factor specified in 6.7.4.2.13.."

6.7.4.13.1 Amend the 4th sentence to read: "... the materials of construction of the shell and jacket..."

6.7.4.14.9 Delete "of the portable tank"

6.7.4.15.1 Replace "The names, in full, of the gases for..." with "The name, in full, of the gas(es) for..."

CHAPTER 7.1

7.1.5 Insert a new section 7.1.5 to read as follows:

"7.1.5 Special provisions applicable to the transport of substances stabilized by temperature control (other than self-reactive substances and organic peroxides)

7.1.5.1 These provisions apply to the transport of substances:

(a) the proper shipping name of which contains the word "STABILIZED"; and

(b) for which the SADT (see 7.1.4.3.1.3) as presented for transport in the package, IBC or tank is 50 °C or lower.

When chemical inhibition is not used to stabilize a reactive substance which may generate dangerous amounts of heat and gas, or vapour, under normal transport conditions, these substances need to be transported under temperature control. These provisions do not apply to substances which are stabilized by the addition of chemical inhibitors such that the SADT is greater than 50 °C.

Note: *Some substances which are transported under temperature control are prohibited from transport by certain modes.*

7.1.5.2 The provisions in 7.1.4.3.1.1 to 7.1.4.3.1.3 and 7.1.4.3.2 apply to substances meeting criteria (a) and (b) in 7.1.5.1.

7.1.5.3 The actual transport temperature may be lower than the control temperature (see 7.1.4.3.1.1) but shall be selected so as to avoid dangerous separation of phases.

7.1.5.4 When these substances are transported in IBCs or portable tanks, the provisions for a SELF-REACTIVE LIQUID TYPE F, TEMPERATURE CONTROLLED shall apply. For transport in IBCs see the special provisions in 4.1.7.2 and the "Additional requirements" in packing instruction IBC 520; for transport in portable tanks see the additional provisions in 4.2.1.13.

7.1.5.5 If a substance the proper shipping name of which contains the word "STABILIZED" and which is not normally required to be transported under temperature control is transported under conditions where the temperature may exceed 55 °C, it may require temperature control."

Renumber subsequent sections accordingly.

ALPHABETICAL INDEX

Amend in accordance with amendments to Chapter 3.2

Add the following new entry:

"1-CHLOROPROPANE	3	1278"

Amend the entry for propyl chloride to read as follows:

"Propyl chloride, see	3	1278"